



NATO Communications and Information Agency
Agence OTAN d'information et de communication

CORSOM CHAT COMPONENTS FAILS TO PROCESS MESSAGES WITH OPTIONAL SECURITY LABEL

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Applies to: LOGFAS 6.5.1 and all previous versions.

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1. GENERAL

The CORSOM Chat Component (CCC) is used to exchange CORSOM Alerts and JOCWatch Incidents between the two systems, using text-based chat messages. CCC processes the incoming messages and updates the corresponding information in the LOGFAS database.

The chat messages are sent using M-Link, OpenFire or similar XMPP-compliant services. If chat servers add "XEP-0258 Security Label" information in the messages, then CCC fails to process the message. The workaround described below is to disable this optional feature of the chat server.

This is recorded as LOGFAS Bug 63890.

2. SYMPTOMS

The symptom of this problem is that CCC is not able to retrieve confirmation messages about importing/rejecting in JOCWatch of the incident. Consequently, the updates are not shown in CORSOM.

3. CAUSE

The root cause of this issue is that CCC fails to process XEP-0258 Security Labels, and subsequently fails to import the whole message.

Chat servers such as M-Link and OpenFire can be configured to apply XEP-0258 Security Labels. If this feature is enabled on the chat server, then all messages are marked with Security Label information, such as shown below.

```
<?xml version="1.0"?>
<message type="groupchat" from="joc@conference.mlink17.ais.itv.ncia.nato.int/jocwatch_lcc" to="mlink_user@mlink17.ais.itv.ncia.nato.int/bebeacedd07092a8"
xmlns="jabber:client">
  <body>[[DEMO-NATO UNCLASSIFIED RELEASABLE TO NATO]] CORSOM INCIDENT NOTIFICATION/JOCWatch 3.3.1 LCC/Imported/JOCWatch URL is
https://ais.itv.ncia.nato.int/#/incidents?incidentNumber=2020-06%230016</body>
  <alert xmlns="urn:oasis:names:tc:emergency:cap:1.1" xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1" xmlns:stream="http://etherx.jabber.org/streams">
<identifier xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1" xmlns:stream="http://etherx.jabber.org/streams">{28baf0b4-498e-4abb-ac4b-ca98542f1da8}</identifier>
<event xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1" xmlns:stream="http://etherx.jabber.org/streams">{28baf0b4-498e-4abb-ac4b-ca98542f1da8}</event>
</alert>
  <securitylabel xmlns="urn:xmpp:sec-label:0">
    <displaymarking bgcolor="yellow">DEMO-NATO UNCLASSIFIED RELEASABLE TO NATO</displaymarking>
    <label>
      <esssecuritylabel xmlns="urn:xmpp:sec-label:ess:0">MTCQAQIGCISGAQQBg0UzBQ0x3JkAgApgHkgBZQIBCAMBoRYwFAYMKwYBBAGDRRKFQECMQQCaIC</esssecuritylabel>
    </label>
  </securitylabel>
  <headers xmlns="http://jabber.org/protocol/headers">
    <header name="Classification">DEMO-NATO UNCLASSIFIED RELEASABLE TO NATO</header>
  </headers>
  <x xmlns:lang="en" xmlns="urn:xmpp:sec-label:0" x-label_bg_color="#FFFF00" x-label_fg_color="#000000" x-portionMarking="DEMO-NATO UNCLASSIFIED RELEASABLE TO NATO"
x-securityBanner="DEMO-NATO UNCLASSIFIED RELEASABLE TO NATO"
derivedFrom="[[MTCQAQIGCISGAQQBg0UzBQ0x3JkAgApgHkgBZQIBCAMBoRYwFAYMKwYBBAGDRRKFQECMQQCaIC]]" ownerProducer="1.3.6.1.4.1.453.25.5.13"
classification="X"/>
</message>
```

Figure 1 - Example chat message with problematic Security Label

This issue affects all LOGFAS CCC versions to date. In the future, CCC will be update to be able to process messages with Security Labels included.

4. RESOLUTION / WORKAROUND

At the time of writing, the Security Label feature of chat servers is not mandatory to be used in the operational environment. When this feature is disabled, then CCC will able to process the messages.

For M-Link, see section H.6.18 "Disable Relabel Out XEP-0258" on how to disable XEP-0258 Security Labels.

See also <https://xmpp.org/extensions/xep-0258.html>.